

ORIGINAL LOG BOOK OF THE "FISH HAWK"

UNITED STATES FISH COMMISSION

STATION NUMBERS

Numbers 917 to 960

$$\begin{array}{r} 984 \\ 916 \\ \hline = 68 \end{array}$$

917.

Pecten tumidicostatus many young
egg cases of *Numasia heros*.

Pleurobranchia Tardus, many

Fish

Raja luciae ♂ 1

Physiculus chus 5-

" *tumidus* 2

Paralichthys oblongus 2

Cottus 18-Spinosus 1 (1 3/8 in)

Hippoglossoides platessoides 1

TEMPERATURE RECORD.

Instrument used, *Trawl*

Current number of observation, *917*

Date, *July 16.*

Locality, *off Martha's Vineyard.*

Bearings, *Lat. 40° 22' N*
Long. 70° 42' W

Time of day, *4.10^{PM}*; of tide,

State of sky, *clear*

Temperature of air, *66*

Thermometer

" surface of water, *63*

46402

" at depth of *10* fathoms, *49*

" of bottom, *42*

46403

Depth, in fathoms, *43 44*

Nature of bottom, *gr. mud*

~~Direction of wind~~ *S.E.* Force *1*

~~Force of surface current~~ *N.E. 3/4 m*

~~Direction of bottom current~~ *20 / 45°*

~~Force of bottom current~~

Name of vessel, *Fish Hawk*

To what service attached, *U.S. Fish Commission*

Name and rank of commanding officer, *J. L. Tanner*

Lieut. U.S. Navy

Name and position of observer,

A. P. Chapin
Yeoman

918

REMARKS.

Fish

<i>Hippoglossoides platessoides</i>	5-
<i>Melchiorgrammus aeglefinus</i>	1
<i>Phycis chuss</i>	18
" <i>tenuis</i>	2
<i>Euchelyopus cimbrius</i>	6
<i>Gobius aeglefinus</i>	1
<i>Liparis</i> (in Pecten)	1

TEMPERATURE RECORD.

Instrument used, *Trawl*
 Current number of observation, *918*
 Date, *July 16, 1881*
 Locality, *off Martha's Vineyard*
 Bearings, *Lat. 40° 20' 24" N.*
Long. 70° 41' 30" W
 Time of day, *5:33 am*; of tide,
 State of sky, *clear*
 Temperature of air, *67*
 " surface of water, *63*
 " at depth of *10* fathoms, *49*
 " of bottom, *42*
 Depth, in fathoms, *45-46*
 Nature of bottom, *gy. mud.*
 Direction of surface current, *Wind S E Force 1*
Drift
 Force of surface current, *N N E 1 m*
Intermediate Temperature
 Direction of bottom current, *2 of 45°*
 " " " " " "
 Force of bottom current, " " " "
 Name of vessel, *Fish Hawk*
 To what service attached, *U.S. Fish Commission*
 Name and rank of commanding officer, *J. L. Tenner*
Lieut. U.S. Navy.
 Name and position of observer,
A. P. Chapin.
Trawlman.

919

REMARKS.

Fish.

<i>Paralichthys oblongus</i>	10
<i>Lophius piscatorius</i>	1
<i>Citharus arctifrons</i>	
<i>Phycis chrus</i>	many
" <i>tenuis</i>	1
<i>Cancer oceanica</i>	1 very large

A small mass of *Lophius*
spawn seen floating along side.

TEMPERATURE RECORD.

Instrument used, *Trawl*

Current number of observation, *919.*

Date, *July 16*

Locality, *Off Martha's Vineyard*

Bearings, *Lat. 40° 16' 18" N.*

Long. 70° 41' 18" W

Time of day, *7 AM.* ; of tide,

State of sky, *clear*

Temperature of air, *70*

" surface of water, *66*

" at depth of *15* fathoms, *48*

" of bottom, *42 1/2*

Depth, in fathoms, *51 1/2 53*

Nature of bottom, *gr. mud*

Direction of *Wind* surface current, *S* Force *1*

Drift Force of surface current, *NE 1 mi*

Intermediate Temperature

Direction of bottom current,

" " Force of bottom current,

Name of vessel, *Fish Hawk*

To what service attached, *U.S. Fish Commission*

Name and rank of commanding officer, *J. L. Tanner*

Lieut. U.S. Navy

Name and position of observer,

A. P. Chapin
Yeoman.

920.

REMARKS.

Citharichthys arcifrons, juv.

TEMPERATURE RECORD.

Instrument used, *Trawl*

Current number of observation, *920.*

Date, *July 16.*

Locality, *Off Martha's Vineyard*

Bearings, *Lat. 40° 13' N.*

Long. 70° 41' 3-4" W

Time of day, *8.20^{am}*; of tide,

State of sky, *clear*

Temperature of air, *72*

" surface of water, *66*

" at depth of *10* fathoms, *45*

" of bottom, *49?*

Depth, in fathoms, *63*

Nature of bottom, *gy mud*

Direction of ~~surface current~~ *Wind S Force 1*

Drift *W by S 1 m*

~~Force of surface current~~ *Intermediate Temperature*

~~Direction of bottom current~~

~~" "~~

~~Force of bottom current~~

Name of vessel, *Fish Hawk*

To what service attached, *U.S. Fish Commission*

Name and rank of commanding officer, *J. L. Tanner*

Lieut U.S. Navy

Name and position of observer,

W. A. Chapin
Yeoman.

921.

REMARKS.

Fish

Citharus arcifrons juv.

Size - Large Egg

Amnopleurops

TEMPERATURE RECORD.

Instrument used,

Trawl

Current number of observation,

921

Date,

July 16.

Locality,

Off Martha's Vineyard

Bearings,

Lat. $40^{\circ} 07' 48''$ N

Long. $70^{\circ} 43' 54''$ W

Time of day,

9.40^{am} of tide.

State of sky,

clear

Temperature of air,

75-

surface of water,

70

at depth of

10 fathoms. 66

of bottom,

5-2

Depth, in fathoms,

65-67

Nature of bottom,

gn. mud.

Direction of

Wind

SS W Force. 1

Drift

W 1 mi

Intermediate Temperature

Direction of bottom current

Force

Name of vessel,

Fish Hawk

To what service attached,

U. S. Fish Commission

Name and rank of commanding officer,

J. L. Tanner.

Lieut. U. S. Navy.

Name and position of observer,

A. P. Chapin
Zoonian.

922.

REMARKS.

Fish

Peristedium sinuatum 5-

Citharusichthys arcuifrons

Maia - small egg. 4

TEMPERATURE RECORD.

Instrument used,

Trawl

Current number of observation,

922

Date,

July 16.

Locality,

Off Martha's Vineyard

Bearings,

Lat. 40° 53' 48" N.

Long. 70° 45' 34" W

Time of day,

10.57^{am} : of tide.

State of sky,

clear

Temperature of air,

76

"

surface of water,

72

"

at depth of

10 fathoms. 59

"

of bottom,

5-2

Depth, in fathoms,

69 71

Nature of bottom,

gr. mud and sand

Direction of

Wind

SW Force. 2

Drift

N by W 1 m

Intermediate temperature.

Direction of bottom current.

20 / 58 1/2°

Force of bottom current.

30 / 0.2.

Name of vessel,

Fish Hawk.

To what service attached,

U. S. Fish Commission

Name and rank of commanding officer,

J. L. Tanner

Lieut. U.S. Navy.

Name and position of observer,

A. P. Chapin.

Junior.

923.
REMARKS.

Fish.

<i>Paralichthys oblongus</i>	-	common
<i>Citharichthys arcifrons</i>	just	♂
<i>Monolene succilioides</i>		1
<i>Phycis chuss</i>		Common
" <i>termin</i>		few
<i>Raja</i> - large egg		1
<i>Raja</i> small "		few

TEMPERATURE RECORD.

Instrument used,

Trawl

Current number of observation,

923

Date,

July 16.

Locality,

off Martha's Vineyard.

Bearings,

Lat. 40° 01' 24" N

Long. 70° 46' W

Time of day,

12.27 ^{PM} ; of tide.

State of sky,

clear

Temperature of air,

74 1/2

"

surface of water,

72

"

at depth of

10

fathoms,

53

"

of bottom,

5-2

Depth, in fathoms,

96

Nature of bottom,

sand

Direction of

Wind.

SW

Force,

2

Drift

WNW

1 1/2 m

Intermediate Temperature,

20

5-4

Direction of bottom current,

5-0

5-3

Name of vessel,

Fish Hawk

To what service attached,

U.S. Fish Commission

Name and rank of commanding officer,

J. L. Tanner.

Lieut. U S Navy.

Name and position of observer,

*A. P. Chapin
Yeoman*

924.

REMARKS.

Fish.

<i>Halimuraea senticosa</i>	1
<i>Macurus Burchii</i>	1
<i>Hyptorophalus cyropterus</i>	1
<i>Physic Chesteri</i>	moderate
<i>Merluccius</i>	few
<i>Scia radiata</i>	1
" <i>sylantierii</i>	few
<i>Myxine glutinosa</i>	1

TEMPERATURE RECORD.

Instrument used, *Trawl*
 Current number of observation, *924*
 Date, *July 16.*
 Locality, *off Martha's Vineyard*
 Bearings, *Lat. 39° 37' 30" N.*
Long. 70° 46' W
 Time of day, *11:32^{am}* : of tide,
 State of sky, *clear*
 Temperature of air, *74 1/2*
 " surface of water, *71*
 " at depth of *5 fathoms, 70, 100, 610*
 " of bottom, *4 4 1/2*
 Depth, in fathoms, *160 104*
 Nature of bottom, *Scud*
 Direction of ~~surface current~~ *Wind* *SW Force. 2*
~~Force of surface current,~~ *Drift* *N.W., 2 m*
~~Direction of bottom current,~~ *Intermediate Temperature* *20 f. 5-8°*
~~Force of bottom current,~~ *5-8 f. 5-9°*
 Name of vessel, *Fish Hawk*
 To what service attached, *U.S. Fish Commission*
 Name and rank of commanding officer, *J. L. Tanner.*
Lieut. U.S. Navy
 Name and position of observer, *A. P. Chapin.*
Yeoman.

125.

REMARKS.

Fish

<i>Haemulon</i>	<i>Sentia</i>	moderate
<i>Glyptocephalus</i>	<i>Cynoglossus</i>	few
<i>Macrurus</i>	<i>Bairdii</i>	2
"	<i>Carminatus</i>	2
<i>Physic</i>	<i>Chesteri</i>	many
<i>Merluccius</i>	<i>very large</i>	1
<i>Lycoches</i>	<i>Serrallii</i>	few
<i>Pottomaculus</i>	<i>microps</i>	2
<i>Scopelus</i>		1
<i>Careproctus</i>	<i>Liparis</i>	1
<i>Synaphobranchus</i>	<i>pinnatus</i>	few

TEMPERATURE RECORD.

Instrument used, *Trawl*

Current number of observation, *925:*

Date, *July 16.*

Locality, *Off Martha's Vineyard.*

Bearings, *Lat. $39^{\circ} 55'$ N.*

Long. $70^{\circ} 47' W$

Time of day, *3.35* ^{PM} ; of tide,

State of sky, *Hazy*

Temperature of air, *74*

" surface of water, *71*

" at depth of *5* fathoms, *70° , $10/5.8^{\circ}$*

" of bottom, *42*

Depth, in fathoms, *~~224~~ 229*

Nature of bottom, *Sand and mud*

Direction of ~~Wind~~ *SSW Force 3*

~~Force of surface current~~ *NW by W $1\frac{1}{2}$*

Intermediate temperature
~~Direction of bottom current~~ *$20/48^{\circ}$*

" " *$5-6/5-3^{\circ}$*

Name of vessel, *Fish Hawk.*

To what service attached, *U.S. Fish Commission.*

Name and rank of commanding officer, *J. L. Tanner.*

Lieut. U.S. Navy.

Name and position of observer,

A. P. Chapin.
Yeoman.

226

REMARKS.

The fish

TEMPERATURE RECORD.

Instrument used,

Trawl.

Current number of observation,

926.

Date,

July 16

Locality,

Off Martha's Vineyard

Bearings,

Lat. $39^{\circ} 56' N$

Long. $70^{\circ} 21' W$

Time of day,

5^h 24^m; of tide,

State of sky,

cloudy

Temperature of air,

74

surface of water,

71

at depth of

10

fathoms,

68°

of bottom,

44

Depth, in fathoms,

197

Nature of bottom,

shut and sand

Direction of

Wind

SS W

Force

3

Direction of

Drift

NW

$\frac{1}{2}$

N

$2\frac{1}{2}$

m

Intermediate temperature

Direction of bottom current,

20° S-9°

"

Force of bottom current,

40° S-3°

Name of vessel,

Fish Hawk

To what service attached,

U.S. Fish Commission

Name and rank of commanding officer,

J. L. Tanner.

Lieut. U.S. Navy.

Name and position of observer,

A. P. Chapin.
Yeoman.

REMARKS.

Limanda ferruginea juv. first
Paralichthys clutatus very large ♀ 1
 " ovaries small; *Lophopsetta* ^{maculata}
 in its stomach.
Lophopsetta maculata 20
Pleuronectes Americanus 23
Paralichthys oblongus 7
Merluccius bilinearis 3
Prionotus Carolinus 2
Cottus 18 *spinosus* juv 1
Raja erinacea 17 ♂ 10 ♀
 Adult and young ♂ together.

TEMPERATURE RECORD.

Instrument used, *Trawl*

Current number of observation, *927.*

Date, *July 20.*

Locality, *Menomasha Bay 64*

Bearings, *Bay Head Light. W by S $3\frac{1}{2}$ S dist. 7 $\frac{1}{2}$ m.*

Fort Snedden Light. NNE. dist. 6 m.

Time of day, *10.47* of tide. *Ebb*

State of sky, *cloudy*

Temperature of air, *68*

" surface of water. *62*

" at depth of *5* fathoms, *61*

" of bottom, *5-9*

Depth, in fathoms, *11*

Nature of bottom, *Sand.*

Direction of ~~surface current~~ *Wind* *SSW Force 2*

~~Force of surface current~~ *Drift* *WNW $\frac{1}{2}$ m*

Intermediate Temperature

~~Direction of bottom current~~

~~Force of bottom current~~

Name of vessel, *Fish Hawk.*

To what service attached. *U.S. Fish Commission*

Name and rank of commanding officer. *J. L. Tanner.*

Lieut. U.S. Navy.

Name and position of observer,

A. P. Chapin
Yeoman

228.

REMARKS.

Fish.

<i>Pleuronectes americanus</i> (Linn.)	23
<i>Limanda ferruginea</i> juv.	1
<i>Paralichthys oblongus</i>	3
<i>Lophopsetta maculata</i> (Linn.)	25
<i>Plyciscus</i> juv.	1
<i>Henicostictus americanus</i> juv.	4
Rain / Erimacea 19 6 27 7	

TEMPERATURE RECORD.

Instrument used,

Trawl

Current number of observation,

928.

Date,

July 20.

Locality,

Memphis River

Bearings,

Gay Head Lt. ~~W 3/4 S~~ dist 2 1/2 m

Tarpon Cove Lt. N N E 1/2 E dist 6 1/2 m

Time of day,

11.30

of tide,

~~Low~~ Low water

State of sky,

Cloudy

Temperature of air,

69

"

surface of water,

62 1/2

"

at depth of

5-

fathoms,

69

"

of bottom,

6-9

Depth, in fathoms,

10

Nature of bottom,

Sandy

Direction of

Wind

SSW

Force,

3

Direction of surface current,

Drift

W 1/2 N

1/2 m

Direction of bottom current,

"

"

Force of bottom current,

Name of vessel,

Fish Hawk

To what service attached,

U.S. Fish Commission

Name and rank of commanding officer,

J. L. Tanner

Lieut. U.S. Navy

Name and position of observer,

A. P. Chapin

From

729

REMARKS.

No fish

TEMPERATURE RECORD.

Instrument used, *Dredge*
 Current number of observation, *1929*
 Date, *July 20*
 Locality, *Whitford Sound off Buck's Hole*
 Bearings, *Top Head S by W 14 1/2 m*
Whaka Lgt. N.E. by E 3/4 E 10 m
 Time of day, *12:35* ; of tide, *Low water*
 State of sky, *cloudy*
 Temperature of air, *66*
 " surface of water, *63*
 " at depth of fathoms,
 " of bottom, *62*
 Depth, in fathoms, *10*
 Nature of bottom, *Sand*
 Direction of ~~surface current~~ *Wind*, *S S W Force 3*
~~Force of surface current~~ *Drift*, *S E by S 3/4 m*
Intermediate Temperature
~~Direction of bottom current~~
~~Force of bottom current~~
 Name of vessel, *Fish Hawk*
 To what service attached, *U.S. Fish Commission*
 Name and rank of commanding officer, *J.L. Tanner*
Lieut. U.S. Navy
 Name and position of observer, *A.P. Chapin*
prom

930.

REMARKS.

Fish

Lophopsetta maculata 3.
Labrid - very young 1

TEMPERATURE RECORD.

Instrument used, *Bridge*

Current number of observation, *930.*

Date, *July 20*

Locality, *Vineyard Sound off Duck's Hole*

Bearings, *Gay Head S by W 4 3/4 mi*

Vineyard Sound (Gay Head) Ship W 3/4 S 7 1/2 mi

Time of day, *1.10* of tide, *Low water*

State of sky, *cloudy*

Temperature of air, *63*

" surface of water, *63*

" at depth of *5* fathoms, *63*

" of bottom, *62*

Depth, in fathoms, *12*

Nature of bottom, *Sand and shells*

Direction of ~~surface current~~, *Drift, S W Force, 3*

Force of surface current, *S 1/2 E 1/2 mi*

~~Direction of bottom current~~

~~Force of bottom current~~

Nature of vessel, *Fish Hawk.*

To what service attached, *U.S. Fish Commission*

Name and rank of commanding officer, *J. L. Tanner.*

Lieut. U.S. Navy.

Name and position of observer,

A. P. Chapin.
Yeoman.

931

REMARKS.

Faint
Scenodonta americana

4

TEMPERATURE RECORD.

Instrument used,

Dredge

Current number of observation,

931.

Date,

July 20

Locality,

Vineyard Sound off Robinson's Hole

Bearings,

North to E N E. 8 m

Gay Head S W by S $\frac{1}{2}$ S $6\frac{1}{2}$ m

Time of day,

1.42 ^{pm} : of tide, flood

State of sky,

cloudy

Temperature of air,

63

"

surface of water,

63

"

at depth of

fathoms.

"

of bottom,

62

Depth, in fathoms,

16

Nature of bottom,

red and shells

Direction of

Wind

SW

Force 2

Force of

Drift

S $\frac{1}{2}$ W $\frac{1}{2}$ m

Intermediate Temperature

Direction of bottom current,

"

Force of bottom current,

Name of vessel,

Fish Hawk.

To what service attached,

U.S. Fish Commission

Name and rank of commanding officer,

J. L. Tanner.

Lieut. U.S. Navy

Name and position of observer,

*A. P. Chapin
Yeoman.*

932.

REMARKS.

Fish

Muraenoides yunnanensis 1
Cottus bairdii juv. 1

TEMPERATURE RECORD.

Instrument used, *Dredge*

Current number of observation, *932*

Date, *July 20*

Locality, *Union and Sound off Turkey's Bay*

Bearing, *Tape Point Cove Light W by S. $\frac{1}{2}$ S 3 mi*

North of Light N.E. by E $\frac{3}{4}$

Time of day, *2.43* ; of tide, *Fluvial*

State of sky, *cloudy*

Temperature of air, *67*

surface of water, *66*

at depth of *5* fathoms, *66*

of bottom, *66*

Depth, in fathoms, *14*

Nature of bottom, *Rock*

Direction of *Wind* *SW* Force *2*

Drift *NW by W $\frac{1}{2}$ mi*

Intermediate Temperature *107 65°*

Direction of bottom current

Force of bottom current

Name of vessel, *Fish Hawk*

To what service attached, *U.S. Fish Commission*

Name and rank of commanding officer, *J. L. Tanner*

Lieut. U.S. Navy

Name and position of observer,

A. P. Chapin
Yeoman

933.

REMARKS.

W. fish

TEMPERATURE RECORD.

Instrument used, *Dredge*

Current number of observation, *983*

Date, *July 20*

Locality, *Viney and Sound off Viney and Haven.*

Bearings, *Whit Chop Lt. S $\frac{3}{4}$ E $\frac{3}{4}$ m*

Tarpaulin Cove Lt. W 7 m

Time of day, *3:30^{pm}* ; of tide, *Flood*

State of sky, *cloudy*

Temperature of air, *68*

" surface of water, *65*

" at depth of *5* fathoms, *64*

" of bottom, *64*

Depth, in fathoms, *14*

Nature of bottom, *stones*

Direction of ~~surface current~~ *Wind*, *SW* Force, *3*

~~Force of surface current~~ *Drift* *E N E. 2 $\frac{1}{2}$ m*

~~Direction of bottom current~~ *Intermediate Temperature*

~~Force of bottom current~~

Name of vessel, *Fish Hawk*

To what service attached, *U. S. Fish Commission*

Name and rank of commanding officer, *J. L. Tanner.*

Lieut. U. S. Navy,

Name and position of observer,

A. P. Chapin
Yeoman.

934.

REMARKS.

Fish.

<i>Paralichthys dentatus</i>	1
<i>Muraenoides grunellus</i>	1
<i>Prionotus Carolinus</i>	6

TEMPERATURE RECORD.

Instrument used, *Trawl*
 Current number of observation, *934*
 Date, *July 20*
 Locality, *Off Falmouth Harbor*
 Bearings, *Nobika Lgt. W $\frac{3}{4}$ S $1\frac{3}{4}$ m*
West Chop Lgt. S $\frac{3}{4}$ E $2\frac{3}{4}$ m
 Time of day, *4:10* ^{*Rel.*}; of tide, *of flood*
 State of sky, *cloudy*
 Temperature of air, *68*
 " surface of water, *67*
 " at depth of *5* fathoms, *67*
 " of bottom, *67*
 Depth, in fathoms, *9*
 Nature of bottom, *sand and gravel*
 Direction of *Wind* *SW Force 2*
~~Force of wind~~ *Drift* *NNW 1 mi*
~~Direction of surface current~~
~~Force of surface current~~
~~Direction of bottom current~~
~~Force of bottom current~~
 Name of vessel, *Fish Hawk*
 To what service attached, *U. S. Fish Commission*
 Name and rank of commanding officer, *J. L. Tanner*
Lieut. U. S. Navy
 Name and position of observer, *A. P. Chapin*
Yeoman

35

REMARKS.

Water Specimens

Depth of specimen J. Spoke. at

~~Jan 21. 1881~~
~~Spoke~~

Long line the loop in rope
about 40 fathoms from boat when
pulled on. Line came up
rough and rusty.

TEMPERATURE RECORD.

Instrument used, *Trawl*

Current number of observation, *935*

Date, *Aug. 1*

Locality, *off Nantuxet*

Bearings, *213° 45'*

Time of day, *6:14* ; of tide, *69° 44' 45" ^{ch}*

State of sky,

Temperature of air, *72*

" surface of water, *70*

" at depth of *5* fathoms, *69.14 66*

" of bottom, *39.5*

Depth, in fathoms, *770 782*

Nature of bottom, *fine mud and sand*

Direction of *Wind*, *W N E Force, 4*

Drift, *NW 1/2 N 2 1/2 mi*

Intermediate Temperature, *20 48*

Direction of surface current

Rate of surface current, *48 1/4*

Name of vessel, *Fish Hawk*

To what service attached, *U. S. Fish Commission*

Name and rank of commanding officer, *J. L. Tanner*

Lieut. U. S. Navy

Name and position of observer,

A. P. Chapin
Yeoman

934.

REMARKS.

Water Specimens

Apparatus used

Depth of Spec.	Spec. No.	at	60 Degrees Fahr.
70.5	1.0242		1.0247275
70	1.0242		1.02565

At record while heaving
in transit. See p. 38, 48, 253.
Satisfactory of costs corrected by
Manual. Also -

TEMPERATURE RECORD.

Instrument used, *Trawl*

Current number of observation, *936*

Date, *Aug. 11*

Locality, *off Nantuxet*

Bearings, *Lat. 39° 46' 35" N
Long. 69° 47' W*

Time of day, *10.43* ; of tide, *sun.*

State of sky, *clear*

Temperature of air, *78*

" surface of water, *71*

" at depth of 5 fathoms, *69/10/61*

" of bottom, *39.5*

Depth, in fathoms, *74-76*

Nature of bottom, *fine sand*

Direction of surface current, *W. 1/2 E. Force 3*

Direction of drift, *W 1/2 N 2*

Direction of bottom current, *20 44*

" " *6 1/2 52*

Name of vessel, *Fish Hawk.*

To what service attached, *U.S. Fish Commission*

Name and rank of commanding officer, *J. L. Tanner*

Lieut. U.S. Navy.

Name and position of observer,

*A. P. Chapin.
Yeoman*

227.

REMARKS.

Water Specimens.

Depth of Spec.	Spec. No.	at Depth Fahr.	at 60° Fahr.
Surf	1.0237	75	1.023865
5 fathoms	1.0238	72	1.023334

Lead going down 5 minutes

" coming up 12

Trawl rope going out 20

" " hauling in 36

Trawl hauled 23 m

Sargassum

TEMPERATURE RECORD.

Instrument used, *Trawl*

Current number of observation, *937.*

Date, *Aug 11*

Locality, *Off Manchester*

Hourly, *39° 49' 35"*

69° 49'

Time of day, *12.45* ; of tide,

State of sky, *clear*

Temperature of air, *75-*

" surface of water, *72*

" at depth of *5* fathoms, *67 10.5 52*

" of bottom, *40.5*

Depth, in fathoms, *50.5 616*

Nature of bottom, *50.5 green mud and sand*

Direction of *Wind* surface current, *NNE Force. 2*

Drift *N 2 1/2 mi*

Intermediate temperature *21/42*

Force of bottom current, *30.5 55*

Name of vessel, *Fish Hawk*

To what service attached, *U.S. Fish Commission*

Name and rank of commanding officer, *J. L. Tanner*

Lieut. U.S. Navy

Name and position of observer,

A. P. Chapin
Lieut.

938.

REMARKS.

Water Specimens

Apparatus Used

Depth of Spec.	Spec. Quantity	at Surface Fahr.	at 60° Fahr.
600 ft.	1.0722	73	1.025724
4 fathoms	1.124	71.5	1.02558475

Shot & line down 4 m
 " coming up 7 m
 Trawl rope giving out 3.54 to 3.10
 " down 3.10 to 3.42
 " coming up 3.42 to 4.12

~~Log of~~

TEMPERATURE RECORD.

Instrument used, *Trawl*
 Current number of observation, *938*
 Date, *Sept. 4, 1881*
 Locality, *off Nantucket*
 Bearings, *Lat. 39° 51'*
Long. 69° 49' 13" W.
 Time of day, *2.44*; of tide,
 State of sky, *clear*
 Temperature of air, *80*
 " surface of water, *72.5*
 " at depth of *5* fathoms, *69* *10* } *57*
 " of bottom, *42*
 Depth, in fathoms, *310 317*
 Nature of bottom, *ground and sand*
 Direction of ~~surface~~ *Wind* *calm* Force *0*
~~Force of surface current,~~ *Drift* *N. N. W. 2 mi*
Intensities temperature 2 of 5-0
 Direction of bottom current,
 " " *5.0 5.3*
 Force of bottom current,
 Name of vessel, *Fish Hawk.*
 To what service attached, *U.S. Fish Commission*
 Name and rank of commanding officer, *J. L. Tanner*
Lieut. U.S. Navy.
 Name and position of observer,
A. P. Chapin
Trawler

939.

REMARKS.

Water Specimens.

Apparatus Used

Depth of Specimen	Spec. Grav.	at Degrees Fahr.	at 60° Fahr.
Surf	1.0238	72.0	1.02364375
5 f.	1.024	71	1.02364373

Temperature 4 m

Correcting up 7 m

Travel going down 4.25 ft 4.25

" " " " 5.0 ft 5.0

" " " " 5.0 ft 5.0

TEMPERATURE RECORD.

Instrument used, *Trawl*
 Current number of observation, *939*
 Date, *Aug. 4*
 Locality, *off Nantucket*
 Bearings, *Lat. 39.53*
Long. 68.30
 Time of day, *4.25* ; of tide,
 State of sky, *Clear*
 Temperature of air, *78*
 " surface of water, *73*
 " at depth of *5* fathoms, *70* *10* *67*
 " of bottom, *47*
 Depth, in fathoms, *258 264*
 Nature of bottom, *fine mud and sand*
 Direction of ~~surface current~~ *Drift* *West Force 1*
~~Force of surface current~~ *1 1/2 mi*
Intermediate Temperature 50 57
~~Direction of bottom current~~
~~Force of bottom current~~ *5.0 5.6*
 Name of vessel, *Fish Hawk*
 To what service attached, *U.S. Fish Commission*
 Name and rank of commanding officer, *J. L. Tanner*
Lieut. U.S. Navy.
 Name and position of observer, *A. P. Chapin*
Yeoman.

740.

REMARKS.

Water Specimens

Apparatus Used

Depth of Specimen	Spec. Gravity	at Degree Fahr.	at 60° Fahr.
Surface	1.024	71.5	1.02569475
5 fathoms	1.0242	71	1.025806

Lead going down 2 m

" coming up 2 m

Crawl going down 3 ft to 6 ft

" down 6 ft to 6.2 ft

" coming up

TEMPERATURE RECORD.

Instrument used, *Trawl*

Current number of observation, *940*

Date, *Aug. 31*

Locality, *off Manhattan*

Bearings, *Lat. 39° 54'*
Long. 59° 51.30'

Time of day, *3 30* ; of tide,

State of sky, *clear*

Temperature of air, *76*

" surface of water, *72*

" at depth of *5* fathoms, *70 10 62*

" of bottom, *5.2*

Depth, in fathoms, *135 134*

Nature of bottom, *sand*

Direction of ~~surface current~~ *Wind* *SE by W Force 1*

~~Force of surface current~~ *Drift* *NNW 2 W 2 m*

Intermediate Temperature 20.49

~~Direction of bottom current~~

~~Force of bottom current~~ *" 30, 49.5*

Name of vessel, *Fish Hawk*

To what service attached, *U.S. Fish Commission*

Name and rank of commanding officer, *J.L. Tanner,*

Lieut. U.S. Navy

Name and position of observer,

A.P. Chapin
Yeoman

941

REMARKS.

Water Specimens.

Apparatus Used

Depth of Spec	Specific Gravity	at Depth	at 60°
Surf	1.024	71	1.025606
5 fath	1.02425	70.5	1.0257775

Lead going down $1\frac{1}{2}$ m
 " coming up $2\frac{1}{2}$ m
 Trawl going down 8 m
 " " 25
 " coming up 8

27.5
 41.0
 68.5

TEMPERATURE RECORD.

Instrument used, *Trawl*
 Current number of observation, *941*
 Date, *Aug 4*
 Locality, *Off Montauk*
 Bearings, *Lat 42.41*
Long 69 55
 Time of day, *7.45* ; of tide,
 State of sky, *clear*
 Temperature of air, *74*
 " surface of water, *71*
 " at depth of *5* fathoms, *70.0*, *5.2*
 " of bottom, *5.2*
 Depth, in fathoms, *75* *79*
 Nature of bottom, *Sand & mud*
 Direction of surface current, *Wind NW Force 3*
Drift W NW 1 1/2
 " of bottom current, *Temperature at 20*
 " " " " *5.2*
 Name of vessel, *Fish Hawk*
 To what service attached, *U.S. Fish Commission*
 Name and rank of commanding officer, *J. L. Tanner*
Lieut. U. S. Navy
 Name and position of observer, *A. P. Chapin*

942

REMARKS.

Water Specimens.

Apparatus Used

Depth of Spec.	Specific Gravity	at Degree	at 60°
Surf	1.024	58	1.025287
5 fath.	1.0212	58	1.023336

Lead going down 3

" coming up 5-

Trawl going down 6, 8 to 6, 30

" down 6, 30 to 6, 33

" coming up. 6, 35 to

Sledge empty

Fish trawl put down
at same time and a little
with 1 shad, point of
view of 942, 1158 $\frac{1}{2}$ lbs
of top holsters taken in
fish trawl also quantity
of shad, largest top hol-
sters weighed 2 lbs.

TEMPERATURE RECORD.

Instrument used, *Bridgman*

Current number of observation, *1942*

Date, *Aug 2*

Locality, *Lat 40.01 N*

Bearings, *Long 71 12 30 W*

Time of day, *6:15* ; of tide, *sun*

State of sky, *clear*

Temperature of air, *72*

" surface of water, ~~72~~ *69*

" at depth of *5* fathoms, *69* / *65*

" of bottom, *5-0*

Depth, in fathoms, *13* / *138*

Nature of bottom, *Sand & Mud*

Direction of *Wind* *SW* Force *2*

Force of surface current, *Drift SW & W 2 m*

Temperature at *5* fathoms, *69* / *65*

Force of bottom current, *5-0* / *5-3*

Name of vessel, *Fish Hawk*

To what service attached, *U.S. Fish Commission*

Name and rank of commanding officer, *J.L. Tanner*

Lieut. U.S. Navy

Name and position of observer, *A.P. Chapin*

243.

REMARKS.

Water Specimens

Apparatus Used

Depth of Specimen	Specific Gravity	at	Temperature
Surf.	1.0238	70	1.023-25
5 fath.	1.02385	69	1.023-137

Lead going down

" coming up

Lead going down 7.14 to 7.28

" do down 7.28 to 7.52

" coming up 7.52 to 8.00

TEMPERATURE RECORD.

Instrument used, *red sea*
 Current number of observation, *5943*
 Date, *Aug. 9*
 Locality, *Lat 40 N*
 Bearings, *Long. 71 14 30 W*
 Time of day, *7.10* ; of tide, *low*
 State of sky, *clear*
 Temperature of air, *76*
 " surface of water, *70*
 " at depth of *5* fathoms, *67, 10/42*
 " of bottom, *gy*
 Depth, in fathoms, *157*
 Nature of bottom, *small sand shells*
 Direction of *Wind S W Force 1*
Drift N W 2 1/2
~~Temperature at~~ *50 32*
 " " *50 33*
 Name of vessel, *Fish Hawk*
 To what service attached, *U. S. Fish Commission*
 Name and rank of commanding officer, *J. L. Tanner*
Lieut. U. S. Navy
 Name and position of observer, *A. P. Chapin*

944

REMARKS.

Water Specimens

Apparent Heat

Depth of Specimen	Specific Gravity	at Degree	at 60°
Surf	1.0238	70	1.02925
5 fath	1.02383	70	1.0253

Lead going down 4 m

" coming up. 7 "

Travel going down 8.3758

" down 8.45 to 9.13

" coming up. 9.13 to 9.20

TEMPERATURE RECORD.

Instrument used, *Trawl*

Current number of observation, *944*

Date, *Aug. 9*

Locality, *Lat. 40.01 N*

Bearings, *Long. 71.14.30 W*

Time of day, *8, 27* ; of tide,

State of sky, *Clear*

Temperature of air, *78.*

" surface of water, *70.*

" at depth of *5* fathoms, *68, 10, 66*

" of bottom, *5-1.*

Depth, in fathoms, *124, 6, 128*

Nature of bottom, *S. m. sh.*

Direction of ~~surface current~~ *Wind*, *Force 1*

~~Direction of surface current~~, *Drift NW $\frac{1}{2}$ N*

~~Temperature of~~ *20.50*

~~Direction of bottom current~~

Name of vessel, *Fish Hawk*

To what service attached, *U.S. Fish Commission*

Name and rank of commanding officer, *J. L. Tanner*

Lieut. U.S. Navy

Name and position of observer,

A. P. Chapin

945.

REMARKS.

Water Specimens

Apparatus used

Depth of Specimen	Specific Gravity	At depth	at 60 degrees
Surf	1.02384	71	1.023456
5 fath	1.0238	71	1.02342775

Lead going down 4 m.
 " coming up 7 -
 Trawl going down 12.19 to 12.19
 " down 12.39 to 1.05
 " coming up 1.05 to 1.22

TEMPERATURE RECORD.

Instrument used,

Trawl

Current number of observation,

945

Date,

Aug. 9

Locality,

Lat 38° 36' N

Bearings,

Long 71.13 W

Time of day, 12.05 ; of tide,

State of sky,

Clear

Temperature of air,

75 -

" surface of water,

71

" at depth of 5 fathoms,

71 0 67

" of bottom,

44

Depth, in fathoms,

207

Nature of bottom,

fine sand & shell

Direction of

Wind

SW Force 4

Direction of surface current,

Drift NW 1/2 N 2

Temperature of

Direction of bottom current,

Drift 58

Force of bottom current,

5.8 53

Name of vessel,

Fish Hawk

To what service attached,

U.S. Fish Commission

Name and rank of commanding officer,

J. L. Tanner

Lieut. U.S. Navy

Name and position of observer,

A. P. Chapin

946
REMARKS.

Water Specimens

Apparatus used

Depth of Specimen	Specific Gravity	At 55 degrees	At 55 degrees
Surf	1.02555	71.5	1.02553475
5 fath	1.0242	68	1.025336

Lead going down 5-
 " coming up 9 1/2
 Trawl going down 2 1/2 to 2 1/2
 " down 2 1/2 to 3 1/2
 " coming up 2 1/2 to 2 1/2

TEMPERATURE RECORD.

Instrument used,

Trawl

Current number of observation,

946

Date,

Aug 9

Locality,

Lat. 39.5-3-30

Bearings,

Long 71.15

Time of day,

2.00

; of tide,

State of sky,

clear

Temperature of air,

75.5

"

surface of water,

71

"

at depth of

5

fathoms,

61

10/60

"

of bottom,

47

Depth, in fathoms,

~~*241*~~ *247*

Nature of bottom,

fine sand & shell

Direction of

Wind

SW

Force 4

Force of surface current,

Drift 4 W 1/2

Temperature of

208 37

Force of bottom current,

3 1/2 5 2

Name of vessel,

Fish Hawk

To what service attached,

U.S. Fish Commission

Name and rank of commanding officer,

J. L. Tanner

Lieut. U.S. Navy

Name and position of observer,

A. P. Chapin

947.

REMARKS.

Water Specimens

Apparatus Used

Depth	Specific Gravity	At degree	At 60 degree
Surf.	1.02350	70	1.025 ⁷³
5 fms	1.0246	65	1.025 ²⁹

Sect going down 7m

" coming up 4.04 to 4.14

Trawl going down 4.13 to 4.40

" down 4.40 to 5.00

" coming up 5.02 to 5.20

TEMPERATURE RECORD.

Instrument used, *Trawl*

Current number of observation, *947*

Date, *Aug. 9.*

Locality, *Lat 39. 3-3, 30 N*

Bearings, *Long 71, 13 30 W*

Time of day, *4.00* ; of tide, *1/2 ebb*

State of sky, *clear*

Temperature of air, *75*

" surface of water, *70*

" at depth of *5* fathoms, *60, 10 / 35*

" of bottom, *44*

Depth, in fathoms, *312 319*

Nature of bottom, *sand & mud*

Direction of *Wind* *SW*, Force *4*

Force of surface *Drift* *WNW 9 mi*

Temperature at *2 of 50*

Force of *50 of 50*

Name of vessel, *Fish Hawk*

To what service attached, *U.S. F.C.*

Name and rank of commanding officer, *J. L. Tanner*

Name and position of observer, *Lieut. U.S. Navy*

A. P. Chapin

TEMPERATURE RECORD.

Instrument used,

Trawl

Current number of observation,

~~948~~ 948

Date,

Aug. 13

Locality,

Rapids Bay — E. U.

Bearings,

Pelipene Islands E 2 m.

Am.

Time of day,

5:20 ; of tide,

State of sky,

Clear

Temperature of air,

76

surface of water,

67

at depth of

~~10~~

fathoms,

of bottom,

66

Depth, in fathoms,

7

Nature of bottom,

bl. mud and shells

Direction of

Wind SW Force 4

Force of surface current,

Drift U SW 1 m

Temperature at

the surface of bottom current,

Name of vessel,

Fish Hawk

To what service attached,

U. S. F. C.

Name and rank of commanding officer,

J. L. Tanner
Lieut. U. S. Navy

Name and position of observer,

A. P. Chapin

949.

REMARKS.

Water Specimens.

Apparatus Used

Depth of Specimen	Specific Gravity	at Depth	at 60°
Surf.	1.0212	65	1.02589
5 fms.	1.0252	65	1.02589

Lead going down

" coming up.

Trawl going down.

" down 5.06 to 5.36

" coming up.

Sounding 2.

Trawling 3.

Depth in fathoms	Time		Time	
	Down.	Up.	Down	Up.
100			5.22	5.48
200			5.06	5.32
300				
400				
500				
600				
700				
800				
900				
1000				

TEMPERATURE RECORD.

Instrument used, *Rake dredge*

Current number of observation, *949*

Date, *Aug 23*

Locality, Lat. *41 07.03 N.*

Bearings, Long. *70 31 W.*

Time of day, *sun*
4.20; of tide.

State of sky, *Clear*

Temperature of air, *68*

" surface of water, *66*

" at depth of *5* fathoms, *66*, *10* fath., *66*

" of bottom, *S-2*

Depth, in fathoms, *100*

Nature of bottom, *Yellow mud*

Direction of ~~surface current~~ *Wind*, *W* Force *3*

Force of ~~surface current~~ *Drift* *N NW 2 m*

Temperature at *20* fath., *48°*

" " *50* fath., *50*

Name of vessel, *Fish Hawk*

To what service attached, *U. S. F. C.*

Name and rank of commanding officer, *J. L. Tanner*

Lieut. U. S. Navy

Name and position of observer,

A. P. Chapin

75-0

REMARKS.

Water SpecimensOff water level

Depth	Specific Gravity	Temperature at 60°	
Surf	1.023	60.2	1.0234
2 fms.	1.02483	63	1.02354

Lead going down

" coming up

Trawl going down

" down 6.03 to 6.28

" coming up

SoundingDepthDownUp

100

200

300

400

500

600

700

800

900

1000

TrawlingDownUp

6.35

6.32.30

6.10

6.28

TEMPERATURE RECORD.

Instrument used, *Trawl*

Current number of observation, *95-D*

Date, *Aug. 23*

Locality, *Lat. 40° 07' N.*

Bearings, *Long. 70° 32' W*

Time of day, *5-5-0^{Am.}* of tide,

State of sky, *Clear*

Temperature of air, *69* ~~*XX*~~

" surface of water, *65-*

" at depth of *5-* fathoms, *64 10 fath.*, *63*

" of bottom, *5-2*

Depth, in fathoms, *69 7 1/2*

Nature of bottom, *Sand & shells & mud*

Direction of ~~surface current~~, *Wind W Force 4*

Force of surface current, *Drift N N W 1 1/2*

~~Temperature at~~ *20 fath.*, *47*

~~Force of bottom current~~, *5-0 fath.*

Name of vessel, *Fish Hawk*

To what service attached, *U.S. F.C.*

Name and rank of commanding officer, *J. L. Tanner*

Name and position of observer, *Lieut. U.S. Navy*

A. P. Chapin

95-1 REMARKS.

Water Specimens

Apparatus used

Depth of Specimen	Specific Gravity	at depth at 60°	
200 f.	1.02495	57 $\frac{1}{2}$	1.0259125
5 fath	1.025	57	1.025787

Lead going down 5 m
 " coming up 8 m
 Trawl going down 9.52 to 10.09
 " down 10.09 to 10.25
 " coming up 14 $\frac{1}{2}$ m

Sounding.			Trawling.	
Depth	Time		Result	
fath	Down	Up	Down	Up
100	2	1, 5.0	9.55	10.35.30
200	3	3.10	9.58	10.32.10
300			10.12	10.29
400			10.07.30	10.27
500			20/ 10.12	10.25
600				
700				
800				
900				
1000				

TEMPERATURE RECORD.

Instrument used, *Trawl*
 Current number of observation, *951*
 Date, *Aug. 23*
 Locality, *Lat. 39° 57' N*
 Bearings, *Long. 70 31 30 W*
 Time of day, *9.40* ; of tide, *star*
 State of sky, *Clear*
 Temperature of air, *78*
 " surface of water, *67 1/2*
 " at depth of *5* fathoms, *65, 10 fath. 64*
 " of bottom, *41*
 Depth, in fathoms, *219 225*
 Nature of bottom, *Mud*
 Direction of ~~surface current~~, *Wind, WNW Force 3*
~~Force of surface current~~, *Drift N 1 1/2 m*
~~Temperature at~~ *20 fath. 49*
~~Temperature at~~ *50 fath. 52*
 Name of vessel, *Fish Hawk*
 To what service attached, *U.S. F.C.*
 Name and rank of commanding officer, *J. L. Tanner*
Lieut. U.S. Navy
 Name and position of observer, *A. R. Chapin*

252.

REMARKS.

Water Specimens

Apparatus used

Depth of Specimen	Specific Gravity	Temperature of	at 60 degrees
Surf.	1.02525	67.5	1.02631125
5 fath.	1.02509	67	1.026137

Lead going down - 8 m

" coming up 11.32.30 to 11.48

Trawl going down 11.46.00 to 12.11.10

" down 12.11.10 to 12.30

" coming up 12.30 to 12.52.20

Sounding

Leadings

Depth in fath.	Time		Time	
	Down	Up	Down	Up
100	11.45.30	11.48	12.45.10	12.52.20
200	12.15	11.42.40	11.50.40	12.49.12
300	12.40	11.40	11.52.40	12.46.10
400	12.60.5	11.38.30	11.55.15	12.43.00
500			11.58.20	12.39.40
600			12.11.10	12.36
700				
800				

952

TEMPERATURE RECORD.

Instrument used, *Trawl*Current number of observation, *952*Date, *Aug 23*Locality, *Lat 39 54 N.*Bearings, *Long 70 28 W*Time of day, *11 28* : of tide,State of sky, *clear*Temperature of air, *72 82*" surface of water, *68*" at depth of *5* fathoms, *66*, *10* fath, *63*" of bottom, *40*Depth, in fathoms, *388 386*Nature of bottom, *yellow mud & sand*Direction of surface current, *Wind NW Force 2*~~Force of surface current~~ *Drift NE $1\frac{1}{2}$* ~~Direction of bottom current~~ *20 fath. 49*~~Force of bottom current~~ *" 50 fath. 53*Name of vessel, *Fish Hawk*To what service attached, *U.S. Fish Commission*Name and rank of commanding officer, *J. L. Tanner*
*Lieut. U.S. Navy*Name and position of observer, *A. P. Chapin*

953

REMARKS.

Water Specimens.

Apparatus Used.

Depth of Specimen	Specific Gravity	Attenuation of	at
Surf.	1.025	670	60 degrees
5 fath.	1.02509	67.5	1.026287
			1.0261125

Lead going down 8 m

" down 6 m + 0.5 m

" coming up 10.5

Trawl going down 3.23.30 to 3.31.7

" down 3.37 to 4.20

" coming up 4.20 to

Sounding

Trawling

Depth in fath	Time Down	Up	Time Down	Up
100	2.25.10	3.20.30	3.27.20	4.12.45
200	2.27	3.18.50	3.31	4.16.2
300	2.28.20	3.17.10	3.34.10	4.13.25
400	2.74.30	3.16	3.35.35	4.11.5
500	2.30.40	3.14.20	3.38.30	4.36.34
600	2.31.50	3.12.30	3.42.38	4.32.40
700	2.33	3.11	3.45.20	4.31.44
800			3.48.10	4.24.30
900			3.51	4.20.40
1000				

Lead 100 lb

TEMPERATURE RECORD.

Instrument used,

Nothing used

Current number of observation,

953

Date,

Aug 28

Locality, Lat.

(39 52 30 N

Bearings, Long.

70 17 30 W

Time of day,

2:30 PM

; of tide,

State of sky,

clear

Temperature of air,

~~77.2~~ *77*

" surface of water,

75.6

" at depth of

5 fathoms, 64, 10 faths, 62

" of bottom,

32, 5'

Depth, in fathoms,

~~74.5~~ *(74.4 fathoms)*

Nature of bottom,

green mud

Direction of surface current,

Wind U NW Force 2

Direction of bottom current,

Drift N NW 1 1/2 mi

Temperature at 20 fathoms,

53

Temperature at 50 fathoms,

54

Name of vessel,

Fish Hawk

To what service attached,

U.S.F. Commission

Name and rank of commanding officer,

J.L. Tanner

Lieut. U.S. Navy

Name and position of observer,

A.P. Chapin

last 42663 was put in its place on sounding line should not 120 fathoms wire.

954.

REMARKS.

Water Specimens.

Apparatus Used.

Depth of Specimen	Specific Gravity	at time of	at time of
Surf	1.02485	68	1.025986
5 fathoms	1.02485	67.5	1.02591125

Lead going down. 7.4 m
 " coming up. 9.53
 Trawl going down 23
 " down

" coming up.

Samples		Drawings	
Depth	Time	Time	Time
100	4.57.10	5.13.38	5.19.12
200	4.57.46	5.12.10	5.22.04
300	4.58.40	5.10.43	5.24.16
400	4.59.12	5.09.27	5.26.10
500	4.59.55	5.07.35	5.28
600	4.56.48	5.06.50	5.29.24
700	4.57.34	5.05.20	5.33.44
800			5.38.27
900			
1000			

TEMPERATURE RECORD.

Instrument used,

Trawl

Current number of observation,

954

Date,

Aug 23

Locality,

Lat 34 53 N

Bearings,

Long 70 18 30 W

Time of day,

4:50; of tide,

State of sky,

Clear

Temperature of air,

74.5

surface of water,

68

at depth of

5 fathoms, 65, 10 fath, 63

of bottom,

39.5

Depth, in fathoms,

642 651

Nature of bottom,

Sand & mud

Direction of

Wind W.N.W. Force 2

Direction of

Drift N.W. 2 m

Temperature of

40 fath, 50

Temperature of

50 fath, 53

Name of vessel,

Fish Hawk

To what service attached,

U.S. F.C.

Name and rank of commanding officer,

J.L. Tanner
Lieut U.S. Navy

Name and position of observer,

A.P. Chapin

Started haul at 6:45 A.M.

to 10 16 1/2

955

REMARKS.

Water Specimens.

Apparatus used.

Depth of Specimen	Specific Gravity	Temperature of	at
Surface	1.0232	8.30	10244125
5 fathoms	1.0238	8.30	102521325

Lead going down.

" coming up.

Trawl going down.

" down.

" coming up.

Soundings

Drawings

Depth in fath.	Time Down	Time Up	Time Down	Time Up
100		6.32.42		
200		6.35.48		
300		6.41.12		
400		6.51.23		
500		6.58.58		
600		6.29.30		
700				
800				
900				
1000				

TEMPERATURE RECORD.

Instrument used, *Trawl nettings*
 Current number of observation, *955*
 Date, *Aug. 12 6*
 Locality, *Buzzards Bay*
 Bearings, *N. 1/2 S. 1/4 m*
 Time of day, *10.30* of tide, *ebb*
 State of sky, *clear*
 Temperature of air, ~~77~~ *87*
 " surface of water, *67.5*
 " at depth of *5* fathoms, *10 fath.*
 " of bottom, *68*
 Depth, in fathoms, ~~620~~ *7*
 Nature of bottom, *sand*
 Direction of ~~surface current~~ *Wind SW Force 3*
~~Direction of bottom current~~ *Drift W by S 1/2 S 1/2 m*
 Temperature at *25 fath.* *46.4 25*
~~Direction of bottom current~~
~~Force of bottom current~~ *5.5 fath.*
 Name of vessel, *Fish Hawk*
 To what service attached, *U. S. F. C.*
 Name and rank of commanding officer, *J. L. Tanner*
 Lieut. U. S. Navy
 Name and position of observer, *A. P. Chapin.*

756.
REMARKS.

Water Specimens
Apparatus Used

Depth of Specimen	Specific Gravity	Temperature	at
Surface	1.0228	69.5	60°
5 fathoms	1.0227	71	
			1.024087
			1.024306

Lead going down

" down

" coming up

Trawl going down

" down

" coming up

Depth in fathoms	Sounding		Trawling	
	Time Down	Time Up	Time Down	Time Up
100				
200				
300				
400				
500				
600				
700				
800				
900				
1000				

TEMPERATURE RECORD.

Instrument used, *Trawl with wings*

Current number of observation, *956*

Date, *Aug. 26*

Locality, *Barbadoes Bay*

Bearings, *Nyctech S SE by E $\frac{1}{4}$*

Time of day, *11, 26* ; of tide, *Low*

State of sky, *Clear*

Temperature of air, *71*

" surface of water, *69*

" at depth of *5* fathoms, *10 fath*

" of bottom, *68*

Depth, in fathoms, *5 $\frac{1}{4}$*

Nature of bottom, *Sandy*

Direction of *Wind*, *S. W.*, Force *3*

Force of surface current, *Drift W by S $\frac{1}{4}$*

Temperature at *20 fath.*

" *50 fath.*

Name of vessel, *Fish Hawk*

To what service attached, *U. S. F. C.*

Name and rank of commanding officer, *J. L. Tanner*

Lieut. U. S. Navy

Name and position of observer,

A. P. Chapin

257.

REMARKS.

Water Specimens.

Apparatus Used.

Depth of Specimen	Specific Gravity	at temp of	at 60°
Surface	1.0227	69.55	1.02406325
5-fathoms	1.0228	70	1.02425

Lead going down.

" down

" coming up

Trawl going down.

" down.

" coming up.

Sinking

Trawling

Depth	Time		Time	
in fath.	down.	up.	down.	up.
100				
200				
300				
400				
500				
600				
700				
800				
900				
1000				

TEMPERATURE RECORD.

Instrument used, *Trawl with anemometer*

Current number of observation, *957*

Date, *Aug. 26*

Locality, *Bay of Islands Bay*

Bearings, *Wye's Neck SSE $3\frac{1}{2}$ E $\frac{1}{8}$*

Time of day, *11, 45*; of tide, *Ebb*

State of sky, *Clear*

Temperature of air, *73*

" surface of water, *69.5*

" at depth of *5* fathoms, *10 fath.*

" of bottom, *68*

Depth, in fathoms, *6*

Nature of bottom, *Sand & Stones*

Direction of ~~surface current~~ *Wind*, *S W Force 4*

~~Force of surface current~~ *Drift W $\frac{3}{4}$ N $\frac{1}{4}$*

Temperature at 250 fath.

~~Direction of bottom current~~ *" 5 fath.*

Name of vessel, *Fish Hawk*

To what service attached, *U. S. F. C.*

Name and rank of commanding officer, *J. L. Tanner*

Lieut. U. S. Navy

Name and position of observer,

A. P. Chapin

95.8.

REMARKS.

Water Specimens:
Apparatus Used.

Depth of Specimen	Specific Gravity	Temperature of	at
Surface	1.0227	70.0	60"
5 fathoms	1.02285	69.5	1.02415
			1.02421325

Lead going down

" down

" coming up

Trawl going down

" down

" coming up

Time of day

Drawings

Depth in fath.	Time		Time	
	Down	Up.	Down	Up.
100				
200				
300				
400				
500				
600				
700				
800				
900				
1000				

TEMPERATURE RECORD.

Instrument used, *Trawl with pump*
 Current number of observation, *95-81*
 Date, *Aug. 26*
 Locality, *Buffetts Bay*
 Bearings, *N 1/2 N 1/2 S 1/2 E 1/4 E 1/3 m*
Rm.
 Time of day, *12, 20* : of tide, *Ebb*
 State of sky, *Clear*
 Temperature of air, *75*
 " surface of water, *70*
 " at depth of *5* fathoms, *10 fath.*
 " of bottom, ~~*sand & stones*~~ *68*
 Depth, in fathoms, *5*
 Nature of bottom, *sand & stones & shells*
 Direction of ~~*surface current*~~ *Wind SW Force 5*
~~*Force of surface current*~~ *Drift WSW 1/3*
Temperature at 20 fath.
~~*Direction of bottom current*~~
~~*Force of bottom current*~~ *5-8 fath.*
 Name of vessel, *Fish Hawk*
 To what service attached, *U.S. F.C.*
 Name and rank of commanding officer, *J. L. Tanner*
Lieut. U.S. Navy
 Name and position of observer, *A. P. Chapin*

959.

REMARKS.

Water Specimens.

Apparatus Used.

Depth of Specimen	Specific Gravity	at temperature of	at
Surface		60°	
5 fathoms			
	Water density		

Lead going down.

" down.

" coming up.

Trawl going down.

" down.

" coming up.

Sundings

Trawlings

Depth in fath.	Time		Time	
	Down	Up	Down	Up.
100				
200				
300				
400				
500				
600				
700				
800				
900				
1000				

TEMPERATURE RECORD.

Instrument used, *Trawl*

Current number of observation, *959*

Date, *Aug 26*

Locality, *Buzzards Bay*

Bearings, *N 1/2 E 5 1/2 mi*

Time of day, *12.40* ; of tide, *Ebb*

State of sky, *clear*

Temperature of air, *72*

" surface of water, *69*

" at depth of *5* fathoms, *10 fath.*

" of bottom, *68*

Depth, in fathoms, *5-*

Nature of bottom, *Sand & stones shells*

Direction of ~~surface current~~ *Wind S W Force 5*

Name of surface current, *Drift W 1/2*

Temperature at 20 fath.

Name of bottom current, *50 fath.*

Name of vessel, *Fish Hawk*

To what service attached, *U. S. S. Commission*

Name and rank of commanding officer, *J. L. Tanner*

Lieut. U. S. Navy.

Name and position of observer,

A. P. Chapin

960.
REMARKS.

Water Specimens.
Apparatus Used.

Depth of Specimen Surface	Specific Gravity	Temperature of Water	at 60°
5 fathoms		dirty	

Lead going down.

" down.

" coming up.

Trawl going down

" down

" coming up.

TEMPERATURE RECORD.

Instrument used, *Trawl*
 Current number of observation, *960*
 Date, *Aug 26*
 Locality, *Buzzards Bay*
 Bearings, *N York neck S $\frac{3}{4}$ E $\frac{1}{2}$ m*
0 m
 Time of day, *1 1 0* ; of tide,
 State of sky, *clear*
 Temperature of air, *72.5°*
 " surface of water, *69.5°*
 " at depth of *5°* fathoms, *10 fath.*
 " of bottom, *68*
 Depth, in fathoms, *4 $\frac{1}{2}$*
 Nature of bottom, *sand & stone shells*
 Direction of ~~surface current~~, *Wind, S W Force 5°*
~~Force of surface current~~, *Drift S W x W $\frac{1}{2}$ m*
Temperature at 2 fath.
~~Direction of bottom current~~,
~~Force of bottom current~~, *" 50 fath.*
 Name of vessel, *Fish Hawk*
 To what service attached, *U. S. F. Commission.*
 Name and rank of commanding officer, *J. L. Tanner*
Lieut. U. S. Navy.
 Name and position of observer, *A. P. Chapin*

REMARKS.

73 fish

541 lbs

heaviest 3.1 lbs